

(e) conveying the waste material remaining after step (c) into a second drum, said second drum having a second gas extraction port;

(f) sealing the waste material in said second drum;

(g) heating the waste material in said second drum to a second temperature greater than said first temperature to volatize a component of the waste material and form a gas;

(h) extracting the gas from said second drum through said second gas extraction port[.];

wherein the heating of the waste material in one or more of steps (c) and (g) is carried out in a non-oxidative environment.

12. (Amended) A method for the recovery of selected materials from waste comprising:

(a) depositing waste material into a first drum, said first drum having a first internal volume and a first gas extraction port;

(b) sealing the waste material in said first drum;

(c) heating the waste material in said first drum to a temperature sufficient to volatize at least one component of the waste material and form a gas;

(d) extracting the gas from said first drum through said first gas extraction port;

(e) placing the waste material remaining after step (d) into a second drum, said second drum having a second gas extraction port and a second internal volume smaller than said first internal volume;

(f) sealing the waste material in said second drum;

(g) heating the waste material in said second drum to a temperature sufficient to volatize at least one component of the waste material and form a gas;

(h) extracting the gas from said second drum through said second gas extraction port[.];

wherein the heating of the waste material in one or more of steps (c) and (g) is carried out in a non-oxidative environment.

22. (Amended) Apparatus for treating waste material and recovering selected products therefrom comprising:

a first drum having a first interior volume and a first gas extraction port;

a second drum having a second interior volume smaller than said first interior volume and having a second gas extraction port;

wherein at least one of said first or second drum further comprises a hot gas inlet for conveying a hot gas into said drum creating a non-oxidative environment inside said drum;
a heater heating the waste material in said first drum to a temperature and for a time sufficient to volatize at least one component of the waste material and form a gas of said component;
a conveyor for moving the waste material that is not volatized from said first drum to said second drum;
a heater heating the waste material in said second drum to a temperature and for a time sufficient to volatize at least one component of the waste material and form a gas of said component;
a conveyor for moving the waste material that is not volatized out of said second drum.

46. (Amended) A desorption method comprising:

- (a) conveying waste material into a desorption drum, said drum having a gas extraction port;
- (b) sealing said drum from the ambient atmosphere;
- (c) conveying hot gas into said drum to create a non-oxidative environment inside said drum and to heat the waste material to a preselected temperature sufficient to volatize at least one component of the waste material and form a vapor;
- (d) extracting the vapor from said drum through said gas extraction port.

Please add the following new dependent claims:

50. (New) The method of claim 1 wherein the non-oxidative environment is created by introducing a substantially oxygen free gas stream inside said drum.

51. (New) The method of claim 50 wherein the oxygen free gas stream comprises an inert gas.

52. (New) The method of claim 12 wherein the non-oxidative environment is created by introducing a substantially oxygen free gas stream inside said drum.

53. (New) The method of claim 52 wherein the oxygen free gas stream comprises an inert gas.

54. (New) The method of claim 22 wherein the hot gas comprises a substantially oxygen free gas stream.

A 55. (New) The method of claim 22 wherein the hot gas comprises an inert gas.

56. (New) The method of claim 46 wherein the hot gas comprises an inert gas.